



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,018	03/27/2001	Ryuichi Ebinuma	35.G2758	7324

5514 7590 06/11/2004

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

NGUYEN, HUNG

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AY

<b>Office Action Summary</b>	<b>Application No.</b> 09/817,018	<b>Applicant(s)</b> EBINUMA ET AL.	
	<b>Examiner</b> Hung Henry V Nguyen	<b>Art Unit</b> 2851	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-13,25,26,34,35,38-40,42,47 and 49-78 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-13, 25, 26, 34, 35, 38-40, 42, 47, 49-66 is/are allowed.
- 6) ☒ Claim(s) 67-73 and 75-78 is/are rejected.
- 7) ☒ Claim(s) 74 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on February 17, 2004 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 67-68, 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spinali (U.S.Pat. 6,118,599).

With respect to claims 67-68, Spinali discloses a supporting structure for supporting an optical element and corresponding method, comprising substantially all of the limitations of the instant claims such as: a first supporting member (210) for supporting the optical element (208), and a second supporting member (216) for supporting the first supporting member. Spinali does not expressly disclose the value of thermal expansion coefficient of the first supporting member

Art Unit: 2851

being between those of the optical element and the second supporting member as claimed. But it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. For example, Spinali suggests that the first supporting member (210) is preferably made of brass or stainless steel, and the second supporting member (216) is made of ultra low expansion glass, silicon or alternatively, Invar. (see figure 7 and col.3, lines 43-65). This provides a clear suggestion that it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the material of the first supporting member as specified in the instant claims for the purpose of reducing the overall displacement of the lenses due to the axial displacement of the supporting members as suggested by Spinali. It would have been obvious to a skilled artisan to select the value of the thermal expansion coefficient of the first supporting member being between those of the optical element and the second supporting member so that the deformation of the lenses is reduced due to the temperature changes and whereby the performance of the optical system is improved.

4. Claims 69-70 and 73, 75-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spinali (U.S.Pat. 6,118,599) in view of Ohkuma et al (U.S.Pat. 6,480,460).

With respect to claims 69-70 and 73, 75-78, Spinali discloses an optical device and corresponding method comprising substantially all basic features of the instant claims as discussed. Spinali lacks to show that the first supporting member being supported by the second supporting member via a plurality of spring members having elasticity in the radial direction of the optical elements. Ohkuma et al discloses a lens holding system having a plurality of spring-shaped elastic supporting members (13a-13d) placed between the first holding member (11) and

Art Unit: 2851

the second holding member (14) wherein an optical element (11c) is supported by the first holding member (see figure 6). In view of such teachings, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Spinali and Ohkuma to obtain the invention as specified in the instant claims. It would have been obvious to a skilled artisan to place a plurality of elastic supporting members as taught by Ohkuma et al, between the first and second supporting members of Spinali for the purpose of reducing the an axial displacement of the optical element due to a temperature changes and improving the quality of the optical system.

***Allowable Subject Matter***

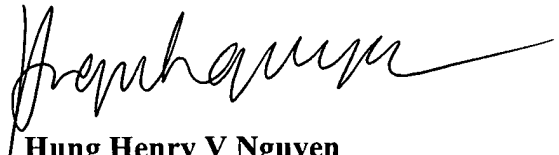
5. Claims 1, 3-13, 25, 26, 34-35, 38-30, 42, 47, 49-66 are allowed.
6. Claim 74 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 571-272-2112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hung Henry V Nguyen', with a long horizontal flourish extending to the right.

**Hung Henry V Nguyen**  
**Primary Examiner**  
**Art Unit 2851**

hvn  
6/7/04